

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



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In re Patent Application of)

Art Unit: 2812

Shunpei YAMAZAKI et al.)

Examiner: V. Simkovic

Serial No. 09/986,743)

Filed: November 9, 2001)

For: LASER APPARATUS, LASER)

ANNEALING METHOD AND)

MANUFACTURING METHOD OF A)

SEMICONDUCTOR DEVICE)

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with The United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on August 18, 2003.

William Steffen

RESPONSE

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The Official Action mailed April 17, 2003, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for One Month Extension of Time*, which extends the shortened statutory period for response to August 17, 2003. Accordingly, the Applicants respectfully submit that this response is being timely filed.

The Applicants note with appreciation the consideration of the Information Disclosure Statement filed on November 9, 2001. The Applicants await confirmation of the Information Disclosure Statements filed on December 12, 2002, and March 20, 2003. A further Information Disclosure Statement is submitted herewith and careful review and consideration of this Information Disclosure Statement is requested.

Claims 1-109 are now pending in the present application, of which claims 1, 6, 10, 15, 19, 23, 27, 32, 36, 40, 44, 48, 51, 55, 58, 61, 64, 68, 71, 74, 77, 81, 84, 88, 91, 97, 101, 104 and 107 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance.

The Official Action rejects claims 1-109 as obvious based on the combination of U.S. Patent No. 5,432,122 to Chae et al. and U.S. Patent No. 5,803,965 to Yoon. It further appears that the Official Action relies on U.S. Patent No. 5,372,089 to Yoshida et

al. to support the rejection (p. 3, Paper No. 6). However, it is unclear whether the Yoshida reference is officially of record with respect to the obviousness rejection of the claims or merely a typographical error in that Yoshida was of record in the previous Official Action (Paper No. 2). In any event, the Applicants respectfully traverse the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. The independent claims of the present invention recite irradiating a semiconductor film with a continuous wave laser beam to crystallize the semiconductor film. The Official Action broadly asserts that Chae teaches the above-referenced feature of the present invention (p. 2, Paper No. 6). However, the Official Action does not provide any citation to Chae to support this assertion. Chae does not teach or suggest at least the above-referenced feature.

Yoon does not cure the deficiencies in Chae. The Official Action asserts that Yoon teaches "the use of a 2nd, 3rd, or 4th harmonic of a CW laser" (p. 3, Id.). However, like Chae, Yoon does not appear to teach a continuous wave laser, much less


irradiating a semiconductor film with a continuous wave laser beam to crystallize the semiconductor film.

Therefore, Chae and Yoon, either alone or in combination, do not teach or suggest irradiating a semiconductor film with a continuous wave laser beam to crystallize the semiconductor film. Since Chae and Yoon do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,



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